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Knowledge Attitude and Practice of Complimentary Feeding Among Mothers Attending Immunization Centre ,RIMS, Ranchi, Jharkhand

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Abstract

Improving infant and young child feeding practices plays critical role in health and development of children and impact child survival. The objective of this study was to describe the relationships between mother's socio-demographic characteristics and mother's knowledge ,attitude and practices (KAP) of infant and young child complementary feeding attending immunization centre RIMS. This study was a cross sectional study done at Immunization Centre, RIMS, Ranchi from August 2015 to October 2015 .All mothers having children of 6 to 24 months of age who attended the Immunization centre of RIMS during our study period were included as our sample population . The collected data was exposed to statistical analysis. It was seen that out of 252 , 112 (44.4%) babies were 6 –10 months of age, majority were 136 (54%) males. About 212 (84.1%) of the respondents were residing in the urban area. Out of 252 respondents, 48(19%) were illiterate,27(10.7%)were literate but not taken formal education ,whereas 175 (69.4%) of the respondents were Educated. Both Nuclear and Joint family was found to be equivalent which was 128(50.8%) in nuclear as compared to 124(49.2%)joint families. Majority i.e 230 (91.3%) of the mothers were housewives .It was concluded that there was a knowledge and practice gap of duration of exclusive breast feeding and initiation and continuation of ideal complementary feeding.

Keywords: KAP, Complementary feeding, knowledge and practice gap.

Introduction

Adequate nutrition is required for child health and development. Growth in the first year of life is greater than any other time after the birth⁽¹⁾. Breast milk gives immunologic protection against mortality from infectious diseases, such as diarrhoea, respiratory infections, pneumonia, otitis media and meningitis⁽²⁾ .

Good and healthy nutrition during this period of rapid growth is vital to ensure that infant develops both mentally and physically to its fullest potential⁽³⁾.

Knowledge, attitudes and practices are associated with infant and child feeding forms an essential first step towards any 'need-felt' for an intervention program to be designed to bring positive behavioural change in the health of infant⁽⁴⁾ It is very common knowledge that breastfeeding is important for immunological protection & infant feeding. Alone Breast milk should be used for feeding the babies in the first six months of life, but from there on, complementary feeding is essential. As this transition period is critical which is associated with dramatic increase in malnutrition among the infants. Infants are most vulnerable in this transition period when complementary feeding begins. Ensuring that the nutritional requirement of the infants are met that requires complementary foods be:

Timely – meaning that they are started when the need for nutrients and energy exceeds that can be provided through frequent and exclusive breastfeeding.

Adequate – meaning that they provide sufficient protein ,energy and micronutrients to be meet a growing child needs.

Safe – meaning that they are hygienically prepared, covered , stored and fed with clean hands using clean utensils.

Properly fed – meaning that they are given adequate and consistent with child’s signals of appetite and satiety, and frequency of meal and feeding method – actively encouraging the child, even during the period of illness, to consume sufficient food using clean hands,spoon or self-feeding –as suitable for the age. The nutritional adequacy of complementary food is very essential for the prevention of morbidity and mortality, including the malnutrition and overweight among infants .

WHO and UNICEF recommend exclusive breastfeeding within an hour after birth, followed by appropriate, adequate and regular complementary feeding to be started after 6 months of age.

Even today India is facing a serious grave challenge of having very high rates of child undernutrition and mortality, which demands an urgent need for comprehensive multi-aspects evidence based policies to tackle this situation. The present Study has been carried out to detect knowledge, attitude and practices(KAP) prevalent among the lactating mothers attending a tertiary level hospital, RIMS, Ranchi. This study is an attempt to unveil certain important aspects of the KAP prevalent among mothers with respect to their infants on Breast feeding, Weaning, Immunization and dietary practices followed by them.

Aim and Objective

1) To describe the relationships between mother’s socio-demographic characteristics and mother’s knowledge,attitude and practices of infant and young child complementary feeding .

Material and Methods

This was a cross sectional study done at Immunization Centre, RIMS, Ranchi from August 2015 to October 2015 .All mothers having children of 6 to 24 months of age who attended the study site were interviewed after taking informed consent using a structured questionnaire. The questionnaire were prepared after literature review and finalized after pre -testing. 310 mothers were consulted out of which only 252 mothers who have given their consent were taken as study sample .A questionnaire content consist of 85 variables divided in **4 parts**. **Part 1** (a) list of (18) items covered Sociodemographic characteristics that included:- **Phase 1:** Age of the child, gender; **Phase 2:** mother's {age, education, occupation, income,information of mother, previous children (type of delivery, place of delivery, feeding type during the first 6 months)}; **Phase 3:** Father’s education, occupation and income, number of members in the family and number of rooms in the house and type of child feeding . **Part 2** (a) list of (14) items covered mothers knowledge regarding infant and child feeding (Breastfeeding, Formula feeding, Complementary feeding) . **Part 3** (a) list of (14) close ends questions covering mother’s attitude toward infant feeding (Breastfeeding, Formula feeding, Complementary feeds) . **Part 4**(a) list of (39) close end question that evaluated mother’s practices concerning infant and child feeding (Breastfeeding, Formula feeding, Complementary feeding) and regarding mother’s source of information.The KAP of mother’s toward the items in questionnaire were rated and scored according to the following patterns:-

The observed data were ordinal for mothers knowledge and practices , two levels of scale were scored as (1, 0) for true ,false respectively and three levels scale for mothers attitudes as(1, 2, 3) for agree , neutral ,disagree respectively. The cut off point was: Those who correctly answered 50 or more than 50 out of 85 questions considered as knowledge, practices and mother’s attitudes of >50 and those who answered less than 50 out of 85 questions considered as knowledge, practices and mother’s attitudes <50.

Correct Frequency of complementary feeding considered correct as follows:

Age	Frequency
6 – 8 months	2 – 3 meals / day
9 – 12 months	3 – 4 meals / day

Correct Amount of food required for weaning according to age is follows:

Age	Amount/feed
6 – 8 months	½ cup
9 – 11 months	2/3 cup
12 months	1 cup

Consistency should be considered correct as follows:

Age	Consistency
6 – 8 months	Thick paste or porridge
9 – 11 months	Mashed food(like potato, egg etc.)
12 months	Small pieces or chopped family food.

Template was generated in Excel sheet and Statistical Package for Social Sciences software (SPSS, version 20) was used for data processing and statistical analysis. Chi square was used to determine the association between the variables and mother's KAP. As no interventions were done in the study so permission from ethical committee was not taken.

Results

In the present study out of 252, 112 (44.4%) babies were 6 –10 months of age with mean age of $8.64 \pm (1.90)$ years. Regarding sex of the infants, 136 (54%) were males.

Out of 252 respondents, Majority i.e 230 (91.3%) were housewives, about 101 (40%) of belonged to the age group 24 – 26 years with a mean age of $24 \pm (1.6)$ years, were illiterate 48(19%), 27(10.7%) were literate but not taken formal education, whereas 175 (69.4%) of the respondents were Educated 212 (84.1%) were residing in the urban area. Both Nuclear and Joint family were found to be equivalent which was 128(50.8%) in nuclear as compared to 124(49.2%) joint families. The per capita income of 215 (85.3%) respondents was about Rs. 3000/- (**Table-1**). There is no statistically significant association with the sex of infants (**Table -2**), Age of mothers(**Table -3**), area of residence (**Table -4**), with the Knowledge and practices of mothers regarding complementary feeding. Practice of mothers was found to be associated with the type of family(**Table-5**) and education of the parents(**Table-6**) with practices of mothers about complementary feeding (Chisquare=8.470 and p-value =.004, Chi square = 8.531 and p-value = 0.003) that was found to be statistically significant. Occupation of the mothers (**Table-7**), Per capita income(**Table-8**) also shows statistically significant associated with the practices of mothers about complementary feeding (Chi-square =5.706 and p-value =.017, Chi-square = 73.463 and p-value =.000).

Knowledge and Practices for complementary feeding

Out of 252 babies, 42 (16.6%) were exclusively breastfed and about 210 (83.3%) were having breast milk along with the complementary feeding. The knowledge about the correct age of starting weaning was known by 116 (46%) respondents but it was practiced by only 108 (42.8%). About 205 (81.3%) respondents had the knowledge that homemade food is good for infants but only 101 mothers (40%) were giving them home made food. About

201 (79.7%) mothers knew the correct frequency of food / day to be given to the infants according to age but only 106 (42%) were giving correct frequency to their infants. Only 132 (52.6%) respondents had the correct knowledge about the amount of food according to age but practically 128 (50.7%) were giving the correct amount. The number of women knowing about the correct consistency of complementary food according to age of the infant was known by 136 (53.9%) but only 130 (51.5%) were giving the correct consistency. About 140 (55.5%) respondents had the knowledge to give more food to the sick child but actually this rule was followed only by 56 (22.2%) mothers. The overall knowledge of 61 (24.2%) mothers is good and 120 (47.6%) had satisfactory knowledge. The overall practices of 27 (10.7%) mothers out of 252 was good (Table -9).

Table-1:-Sociodemographic characteristics associated with Complementary feeding

VARIABLE		FREQUENCY(%)
SEX OF CHILD	MALE	136(54%)
	FEMALE	116(46%)
AGE OF RESPONDENT (MOTHERS)	18 -20Yrs	21(8.3%)
	21-23Yrs	85(33.7%)
	24-26Yrs	101(40.0%)
	27-29 Yrs	35(13.8%)
	>30 Yrs	10(3.9%)
RELIGION	HINDU	114(45.2%)
	MUSLIM	60(23.8%)
	CHRISTIAN	55(21.8%)
	SARNA	23(9.1%)
TYPE OF FAMILY	NUCLEAR	128(50.8%)
	JOINT	124(49.2%)
LITERACY	ILLITERATE	48(19.0%)
	UPTO CLASS IV	27(10.7%)
	CLASS V TO IX	21(8.3%)
	10 TH	64(25.3%)
	UPTO 12	24(9.5%)
	GRADUATE	38(15.0%)
	MASTERS	30(11.9%)
LOCALITY	RURAL	40(15.9%)
	URBAN	212(84.1%)
ETHNICITY	TRIBAL	136(53.9%)
	NON TRIBAL	116(46.0%)
OCCUPATION	HOUSEWIFE	230(91.3%)
	EMPLOYED	22(8.7%)

Table 2:-Distribution of knowledge and practice with gender of babies

			Knowledge and Attitude		Practice		Total
			>50	<50	>50	<50	
Gender	Male	Count	104	32	57	61	136
		%	76.5%	23.5%	55.1%	44.9%	100.0%
	Female	Count	78	38	55	61	116
		%	67.2%	32.8%	47.4%	52.6%	100.0%
Total	Count	182	70	130	122	252	
	%	72.2%	27.8%	51.6%	41.4%	100.0%	
			Chi square = 2.658 P value =.103		Chi square = 1.499 P value =.221		

Table 3:-Distribution of knowledge and practice with Age group of respondents

			Knowledge and Attitude		Practice		Total
			>50	<50	>50	<50	
Age group	18-26 yrs	Count	75	33	58	50	108
		%	69.4%	30.6%	53.7%	46.3%	100.0%
	>26yrs	Count	108	36	93	51	144
		%	75.0%	25.0%	64.6%	35.4%	100.0%
Total		Count	183	69	151	101	252
		%	72.6%	27.4%	59.9%	40.1%	100.0%
			Chi square = .958 P value =.328		Chi square = 3.042 P value =.081		

Table 4:-Distribution of knowledge and practice with locality

			Knowledge and Attitude		Practice		Total
			>50	<50	>50	<50	
Locality	Urban	Count	157	55	109	103	212
		%	74.1%	25.9%	51.4%	48.6%	100.0%
	Rural	Count	26	14	20	20	40
		%	65%	35%	50.0%	50.0%	100.0%
Total		Count	183	69	129	123	252
		%	72.6%	27.4%	51.2%	48.8%	100.0%
			Chi square =1.388 P value =.239		Chi square = .027 P value = .870		

Table 5:-Distribution of knowledge and practice with family

			knowledge and Attitude		Practice		Total
			>50	<50	>50	<50	
Type of Family	Nuclear	Count	97	31	55	73	128
		%	75.8%	24.2%	43.0%	57.0%	100.0%
	Joint	Count	87	37	76	48	124
		%	70.2%	29.8%	61.3%	38.7%	100.0%
Total		Count	184	68	131	121	252
		%	73.0%	27.0%	52.0%	48.0%	100.0%
			Chi square = 1.010 P value =.315		Chi square = 8.470 P value =.004 *		

Table 6:-Distribution of knowledge and practice with Education of respondents

			Knowledge and Attitude		Practice		Total
			>50	<50	>50	<50	
Type of education	Illiterate	Count	38	39	51	26	77
		%	49.4%	50.6%	66.2%	33.8%	100.0%
	Educated (primary education to masters)	Count	88	87	81	94	175
		%	50.3%	49.7%	46.3%	53.7%	100.0%
Total		Count	126	126	132	120	252
		%	50%	50%	52.4%	47.6%	100.0%
			Chi square= .019, P value =.891		Chi square= 8.531, P value =.003*		

Table 7:-Distribution of knowledge and practice with Occupation

			Knowledge and Attitude		Practice		Total
			>50	<50	>50	<50	
Occupation	Housewife	Count	168	62	124	106	230
		%	73.0%	27.0%	53.9%	46.1%	100.0%
	Employed	Count	15	7	6	16	22
		%	68.2%	31.8%	27.3%	72.7%	100.0%
Total		Count	183	69	130	122	252
		%	72.6%	27.4%	51.6%	48.4%	100.0%
			Chi square = .239 P value =.625		Chi square = 5.706 P value =.017*		

Table 8:-Distribution of knowledge and practice with socio economic status

		Knowledge and Attitude		Practice		Total
		>50	<50	>50	<50	
Socio-economic class	>3000	Count 155	60	10	205	215
		% 72.1%	27.9%	4.7%	95.3%	100.0%
	<3000	Count 26	11	20	17	37
		% 70.3%	29.7%	54.1%	45.9%	100.0%
Total	Count	181	71	30	222	252
	%	71.8%	28.2%	11.9%	88.1%	100.0%
		Chi square = .052 P value =.820		Chi square = 73.463 P value =.000*		

Table 9:-Mothers knowledge and Practice regarding Amount, types and frequency of complementary food given

Initiation of Complementary feeding		
Age in months	Knowledge and Attitude	Practice
< 6 months	92(36.5%)	94(37.3%)
At 6 months	135(53.5%)	108(42.8%)
>6 months	25(9.9%)	50(19.8%)
Type of complementary food given		
	Knowledge and Attitude	Practice
Homemade	105(41.6%)	106(42%)
Commercially prepared	63(25%)	63(25%)
Both	84(33.3%)	83(32.9%)
Frequency of complementary food given		
	Knowledge and Attitude	Practice
Correct	201(79.7%)	155(61.5%)
Incorrect	51(20.2%)	97(38.4%)
Amount of complementary food given		
	Knowledge and Attitude	Practice
Correct	132(52.3%)	130(51.5%)
Incorrect	120(47.6%)	122(48.4%)

Discussion

The findings of the study indicated that 86% mothers exclusively breastfed their infants and after 6 months, 84% had continued breast feeding along with complementary feeding. The exclusive breast feeding rate depicted in the Present study is very high as compared to the other states in our country. However a study conducted in urban slums of Kolkata, only 28.33% of the infants were exclusively breastfeed ⁽⁵⁾. The difference in rates of exclusive breastfeeding may be due to the education, cultural practice ,attitude and knowledge of the respondents regarding breastfeeding and its duration. According to this study, the correct knowledge of initiation of complementary feeding at 6 months was reported by 53.5% of mothers but it was found to be practiced by only 42.8%. Another study showed, only 17.5% mothers started complementary feeding at recommended time in children between 6 months to 2 years of age⁽⁶⁾.Role of health care system in imparting the knowledge about complementary feeding is very important but seems to be weak according to the Present study leading to inaccurate practices among the mothers. Homemade food is given by 42% mothers like kitchri, dahlia etc. and only 25 % were using market prepared food in this study .About 79.76% of mothers had the correct knowledge regarding frequency of the food according to age of the infant by the mother but it was practiced by only 61.5% of mothers. In another study adequate meal frequency was observed in about one – half(48.6%) of children aged 6 – 23 months. Regarding the amount of complementary feeding / day correct knowledge for amount was known by 52.3% but only 51.5% of mothers were actually Practicing correct amount of complementary feeding in this study. Another study Regarding consistency of weaning food showed the correct knowledge of mothers was 54% but practically correct consistency was given by 51% mothers where as another study indicated that

knowledge of mothers about adequate consistency of weaning food was 25.5% and in practice consistency of food was adequate in (38%) of infants⁽⁶⁾. In this study, regarding the food groups, 47 (19%) mothers had the knowledge that 4 and > 4 foods to be given to the infants and the same number of women were giving 4 and > 4 food groups. The overall good knowledge of respondents regarding complementary feeding was > 70% in 24% respondents where as satisfactory knowledge was found in 48% and poor knowledge in 28%. Similarly another study reported that majority of mothers lacked knowledge about complementary feeding. Only 16 (8%) mothers had proper knowledge of weaning age, frequency and consistency of complementary food ⁽⁶⁾. The overall good practices of respondents were 27% in this study who had started complementary feeding at proper time, in adequate quantity and with proper consistency. Analysis of this study revealed that children of 4 – 9 months of age living in nuclear family were less likely to be breastfed, to be weaned later when grandmothers are involved in childcare. It is concluded that about one third of mothers had good knowledge and approximately more than half of mothers were poor in their practices for complementary feeding. The factors that affect the practices of mothers regarding complementary feeding were education of the parents, occupation of mother ,type of family, Socio-economic class but sex of infant and locality was not affected by any of the factors mentioned in this study.

Conclusion

Immunization clinic is the best place and vaccination time is the ideal time for educating mothers about appropriate feeding practices so, emphasis should be given to educate mothers about breast feeding and complementary feeding practices during immunization. Finding of this study will be useful to health planners and health policy makers working in government as well as in nongovernmental organizations working in the field of health and nutrition to improve the practices of mothers about infant and young child feeding.

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